ů,

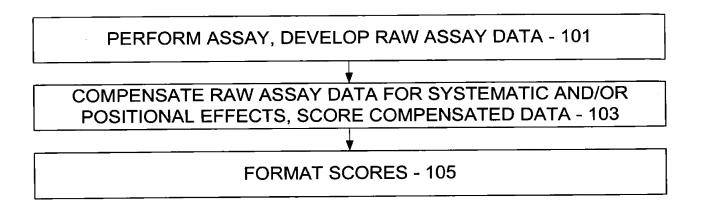


FIG. 1

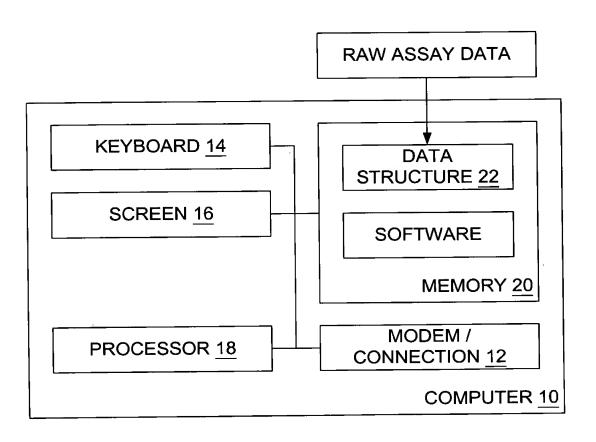


FIG. 2

## RECEIVE RAW MEASURED DATA VALUES xijp FROM SAMPLE WELLS i,j OF ALL PLATES p INTO DATA STRUCTURE <u>22</u> - 301

RESISTANTLY FIT RAW DATA xijp FOR EACH PLATE p TO ROW-COLUMN ADDITIVE MODEL: - 303

yijp = 
$$\mu p$$
 + R'ip + C'jp + eijp

LONGITUDINALLY (PLATE-WISE) NON-LINEARLY SMOOTH EACH R'ip AND EACH C'jp: - 305

$$yijp = \mu p + Rip + Cjp + e'ijp$$

NON-LINEARLY SMOOTH EACH e'ijp ACROSS THE PLATES p BY PLATE POSITION TO APPROX. ANY INTERACTIVE EFFECT: - 307

$$yijp = \mu p + Rip + Cjp + smoothp(e'ijp) + rijp$$

NORMALIZE EACH rijp BY STANDARD DEVIATION VALUE DERIVED FROM ALL rijp 's ON PLATE p TO GET SCORE: - 309

scoreijp = rijp / (standard deviation value)p